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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/286,027	04/05/1999	LUKAS LEYTEN	PHN16819	4425

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EXAMINER
NGUYEN, SIMON

ART UNIT	PAPER NUMBER
2685	13

DATE MAILED: 05/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/286,027	LEYTEN ET AL.	
	Examiner	Art Unit	
	SIMON D NGUYEN	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 April 1999* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 April 1999* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to label components marked by numbers in figs. 1-7.

Correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurby et al. (5,559,806) in view of Bradley et al. (5,864,316).

Regarding claim 1, Kurby discloses a portable transceiver (fig.5) having an antenna configuration connected to control device (680 of fig.5) for forming a plurality of different antenna directivity configurations (column 5 lines 10-30) in which the control device comprises the steering control and system control (680, 690 of fig.5) act as a detector means for discriminating between a transmitting state and a receiving state (column 5 lines 31-67) and selecting various selection patterns (column 5 lines 59-67

and column 6 lines 26-35). However, Kurby does not specifically disclose various non-uniformly selective patterns.

Bradley discloses an array antenna in a portable communication device having an antenna controller (400 of fig.6), a proximity detector (406 of fig.6), and a steering information detector (404 of fig.6) for detecting and controlling various non-uniformly selective patterns (column 6 lines 1-17, column 7-8 lines 60-67, 1-6). It would have been obvious to one skilled in the art at the time the invention was made to apply the teaching of Bradley in the portable transceiver of Kurby to scatter energy into a side lobe which significantly less gain then the main lobe. The motivation being that it reduces power consumption, increases the coverage range, and improves the efficiency of the antenna array.

Regarding claim 2, Kurby discloses that when a particular antenna pattern is selected based on signal quality for a communication link, other antenna patterns are excluded (column 6 lines 26-34).

Regarding claims 3-5, the modified Kurby system, wherein Bradley further discloses that there are objects as non-uniform references which block a selected antenna beam pattern (column 6 lines 1-17, column 10 lines 1-16) wherein the non-uniform references are subject to overruling by a user person (column 5 lines 1-9), and the transmitting state is adjusted the antenna pattern that would expectably cause a strong field absorbance in nearby physical matter (column 6 lines 1-25). It would have been obvious to one skilled in the art at the time the invention was made to apply the

teaching of Bradley in the portable transceiver of Kurby in order to improve the efficiency of the antenna array and to reduce the power consumption.

Regarding claim 6, Kurby further discloses that the control block 680 is exclusively operational during an actual communication link (column 5 lines 41-57).

Regarding claims 7-9, in the modified Kurby system, Kurby further discloses signal measurement circuit 670 (fig.5) for measuring an apparent origin direction of a reception field and actual reception signal strength for conversion into a parameter whose indicated value varies with a deviation from an optimum orientation (column 5 lines 32-67, column 6). However, Kurby fails to disclose indicator means for presenting a user indication.

Bradley discloses alarm device 408 (figs.6, 12) as indicator means for presenting a user indication by either through visual alarm device 920 or audio alarm device 922 (column 6 lines 1-26, column 8 lines 45-67) and a processor 500 in combination with a detector 406 provide position/ bearing /attitude of the portable phone by sending appropriate parameters to the antenna (columns 9-10 lines 46-67, 1-17). It would have been obvious to one skilled in the art at the time the invention was made to have indicator means of Bradley in the communication device of Kurby in order to instruct the user to either change the position of the portable phone or informing the user that an object is about to interfere with the antenna beam and cause of loss of the communication in an original direction.

Regarding claim 10, in the modified Kurby system, Bradley further discloses the portable phone includes position detector 404 having GPS receiver 904 (fig.7) for

detecting the position of the portable phone (column 6 lines 26-39) and the user indication via either audio alarm device 922 or visual alarm device 920 for indicating different position of the portable phone (fig.12, column 8 lines 45-67). It would have been obvious to one skilled in the art at the time the invention was made to have indicator means of Bradley in the communication device of Kurby in order to instruct the user to either change the position of the portable phone or informing the user that an object is about to interfere with the antenna beam and cause of loss of the communication in an original direction.

Regarding claim 11, in the modified Kurby system, Kurby further discloses signal measurement circuit 670 (fig.5) for measuring an apparent origin direction of a reception field and control system 680 for controlling a reception pattern (figs 2-3, column 5 lines 32-67, column 6) by using a phase shifter (column 4 lines15-16). However, Kurby does not specifically disclose a step of controlling a main axis of a reception pattern.

Bradley discloses a step of controlling a main axis of a reception pattern along an original direction (column 6 lines 40-57). It would have been obvious to one skilled in the art at the time the invention was made to have the teaching of Bradley in the communication device of Kurby in order to maintain power strength in the original direction.

Regarding claim 12, Kurby discloses the transceiver 210 (fig.1) as a portable radiotelephone (column 2 line 58).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gans et al. (5,610,617) disclose an array antenna to provide directive capabilities to permit the communication system to determine and select the transmission path having an optimum signal quality (columns 1-2).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Nguyen whose telephone number is (703) 308-1116. The examiner can normally be reached on Monday-Friday from 7:00 AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban, can be reached on (703) 305-4385.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Hand-delivered response should be brought to Crystal Park II,

2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Simon Nguyen

April 29, 2003

Simon Nguyen